

Life Processes

It's not easy to describe simply what is living and what is not. In fact the only way we can tell if something is alive is if it can do all seven of what we call *Life Processes*.

The life processes are: **M**ovement, **R**espiration, **S**ensitivity, **G**rowth, **R**eproduction, **E**xcretion and **N**utrition.

It is sometimes helpful to use the name **MRS GREN** to remember these by.

Below is a description telling you about each life process.

Movement

All living things move. Even plants move. They move very slowly by growing in certain directions. Plants can grow towards the light. Even microscopic organisms like bacteria and amoebas move.

Respiration

All living things need energy so they can do things like move and grow. *Respiration* releases energy from food so living things can do stuff. Animals must use food, water, and oxygen to make energy. Plants use water, carbon dioxide, and sunlight to make energy. Some microscopic organisms make energy like plants; others make energy like animals.

Sensitivity

Living things need to be aware of their surroundings. This helps them keep out of danger and away from harm, but it also helps us to find food and shelter. We have our five senses which enable us to sense our surroundings. Plants can sense where light is coming from so they can grow towards the light. Microscopic organisms can sense where food is in a similar way to the way we can smell food.

Growth

All living things grow and get bigger. Things grow because their cells either divide to make new cells or their one cell gets bigger. From a tiny seed a tree can grow. From a tiny baby we all grow up into adults. Even microscopic organisms grow, though not very much by our standards.

Reproduction

All living things need to reproduce to keep the species going so they do not all die out. Humans like other animals produce babies. Plants produce seeds which grow into new plants. Microscopic organisms reproduce by simply dividing into two!

Excretion

All living things make waste. When we respire we make carbon dioxide gas. This is got rid of when we breathe. When we go to the toilet to urinate we get rid of waste which was in our blood. Plants get rid of the oxygen they make (it's a waste to them). All living things must get rid of the waste they make. This is called *excretion*.

Nutrition

All living things need food. Animals must consume (*eat*) other living things to get food. Plants can make their own food by **photosynthesis**. They use simple chemicals and the energy in sunlight to make food like sugar.